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Creating a Category Under the Kyoto Protocol Based on Non Emissions

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> "What about making the Yasuní Park a sanctuary for humanity and nature? It would be extraordinary . . . We should be an intelligent country. Oil is unsustainable. We must see it in the long term."[2]
>
> -Alberto Acosta, Former Oil Minister of Quito

I. Introduction

The Kyoto Protocol, which binds thirty-seven nations to reduce greenhouse gas emissions by an average of 5 percent below 1990 levels between 2008-2012, is set to expire in 2012.[3] Prior to its expiration, a new protocol must be negotiated and important questions regarding what carbon caps should be instituted, what market mechanisms should be available for meeting those caps, and a timeline for meeting those goals, must be resolved.[4]

The Intergovernmental Panel on Climate Change, the United Nations' scientific advisors, suggest that developed nations must cut their emissions "between 25% and 40% below 1990 levels by 2020, and between 50% and 85% by 2050" in order to "head off the worst effects of climate change."[5] Many believe, however, that such commitments are economically and practically infeasible.[6] Therefore, in the successor to the Kyoto Protocol, it is imperative that flexibility mechanisms are expanded to afford developed nations the opportunity to work toward achieving these goals. Such "flexibility mechanisms" allow countries that are unable to meet their carbon caps to offset their usage using a market solution that falls into one of three discreet categories as defined by the Kyoto Protocol: Clean Development

2. Vidal, John, *Andean Voices: Alberto Acosta*, http://www.guardian.co.uk/environment/2010/dec/02/andean-voices-alberto-acosta (Dec. 2, 2010).

3. *Kyoto Protocol* (1998), *available at* http://unfccc.nt/kyoto_protocol/items/2830.php.

4. *Kyoto Protocol's Successor: too much, too soon?* (June 4, 2009), *available at* http://unfccc.int/kyoto_protocol/items/2830.php.

5. *Id.*

6. *Id.*

Mechanism, Joint Implementation, and Emissions Trading Mechanism.[7] The new market solution I am proposing would fall within the Clean Development Mechanism as defined by Article 12 of the Kyoto Protocol.[8]

Deforestation is responsible for an estimated 20 percent of global greenhouse gas emissions.[9]

Avoided deforestation projects, such as the Yasuni Initiative, which achieve concomitant benefits of avoided extraction, avoided fuel-combustion, and avoided colonization (hereafter referred to as "Market-based Preservation Projects"), represent a holistic approach to climate change by controlling not just the release, but also the sequestration of carbon from the atmosphere. Among the leading causes of deforestation are clearing forestland for agriculture, mineral extraction, hydro-reservoirs, and degradation of forests for fuel wood.[10] While deforestation alone results in the destruction of a carbon sink, the accompanying activity is an additional source of excessive greenhouse gas emissions. The benefits of avoiding deforestation stretch far beyond the preservation of the forest whether it is clearing for the purpose of rearing methane-producing cattle or extracting fossil fuels.

In a revolutionary *avoided deforestation* initiative, Ecuador is proposing to leave fossil fuel-rich regions untouched in exchange for the value of the oil under the surface. The project will result in the preservation of the forest as a carbon sink and prevent the colonization of the surrounding area, extraction of the fossil fuels, and operation of greenhouse gas emitting industrial machinery. Since Ecuador is asking only to be compensated for the value of the oil, the additional environmental benefits that result from the non-extraction of the oil are surplus benefits. Incorporating carbon credits earned via such market-based preservation projects into the next international binding agreement on climate change is essential. The current negotiation process is perhaps the last opportunity to create an economic incentive for preserving hubs of biodiversity. Although issues of valuation and verification of such projects will continue to be grappled with, reliable

7. *Id.*

8. "The purpose of the clean development mechanism shall be to assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3." *Kyoto Protocol* (1998), Article 12, *available at* http://unfccc.int/resource/docs/convkp/kpeng.pdf.

9. Myers, Erin C. (Dec. 2007). "Policies to Reduce Emissions from Deforestation and Degradation (REDD) in Tropical Forests" (PDF), *Resources Magazine*: 7 (last visited Feb. 28, 2011).

10. Intergovernmental Panel on Climate Change, *Technologies, Policies and Measures for Mitigating Climate Change*, Technical Paper 1 (Nov. 2006), *available at* http://www.ipcc.ch/pdf/technical-papers/paper-I-en.pdf.

systems of administration of such programs already exist and should be used as models.[11]

In this note, I assert that market-based preservation programs should be incorporated into the successor to the Kyoto Protocol. First, I outline the current state of international climate change treaties. Next, I list the reasons that market-based preservation projects must be incorporated into the successor by outlining the value of such projects. Finally, I look at the Yasuní Initiative as a model for market-based preservation programs, and will discuss the structure of the program as a guide to be integrated into the successor to the Kyoto Protocol.

II. The State of International Climate Change Negotiations

In 2007, following the United Nations Climate Change Conference in Bali, all participating nations agreed to adopt the "Bali road map," which committed participating nations to negotiating a successor to the Kyoto Protocol over the next two years. In 2009 at the Conference of the Parties in Copenhagen, no formal successor was adopted, but the Copenhagen Accord ("Accord") was "taken note of."[12] Although no formal binding commitments for the successor to the Kyoto Protocol have been recorded, the path has been paved for a few key components to be incorporated, including a global market to cap and trade carbon dioxide emissions,[13] a recognition that a scientific basis exists for keeping temperature rises below 2°C, a commitment to increasing contributions for climate related projects to the developing world, and support for REDD+ mechanisms for reducing CO_2 emissions.[14]

11. Pax Natura, NEWS: *Costa Rica – A Leader in Forest Preservation*,http:// *available at* www.trunity.net/paxnatura/news/view/131452/?topic=8718 (last visited Feb. 3, 2011).

12. "UNFCC: Text of Copenhagen Accord" http://unfccc.int/resource/docs/2009/cop15/eng/l07.pdf (last visited Feb. 3, 2011); *See also* Werksman, Jacob, *Taking Note of the Copenhagen Accord: What it Means* (December 2009), *available at* http://www.wri.org/stories/2009/12/taking-note-copenhagen-accord-what-it-means. One political scholar explains "the words 'legally binding' were conspicuously removed from earlier drafts of the Accord by delegations that aren't yet ready to enter into a legally binding instrument. But the Accord is 'politically binding' on those countries that choose to sign up to it."

13. *See* "Guardian Unlimited: Global leaders reach climate change agreement." *The Guardian* London (Feb. 16, 2007), *available at* http://www.guardian.co.uk/environment/2007/feb/16/usnews.greenpolitics. Known as the Washington Declaration," the G8 plus five (Brazil, China, India, Mexico and South Africa) met in Washington and informally agreed that a global cap and trade market for CO_2 emissions should be incorporated into a successor to the Kyoto Protocol.

14. *Id.*

A. The Incorporation of Reducing Emissions from Deforestation and Forest Degradation Projects into the Clean Development Mechanism[15]

In the agreement that emerged from the meeting of global leaders in Cancun in 2010, the Conference of Parties adopted a document titled, "Outcome of the Work of the Ad Hoc Working Group on Long-Term Cooperative Action Under the Convention," which included an outline agreement on the REDD program.[16] Under this agreement, aforestation and reforestation projects are eligible to earn tradable credits under the Clean Development Mechanism ("CDM") of the Kyoto Protocol.[17] Aforestation refers to anthropogenic conversion of nonforested areas that have not been forested for at least fifty years into forested land.[18] Reforestation refers to conversion of non-forested areas that have not been forested since December 31, 1989.[19]

From its inclusion in the Bali Action Plan in 2007 at Conference of the Parties ("COP") 13, through negotiations in Poznan in 2008,[20] to the United Nations Framework Convention on Climate Change ("UNFCC") Talks in Bonn in 2009,[21] REDD has transformed into an enhanced, broad-based approach to mitigate the effects of climate change. REDD focuses not only on conservation, but on sustainable forest management and forest carbon stock enhancement, thereby earning the title "REDD+."[22] The agreement that

15. Abate, Randall, REDD, *White and Blue: Is Proposed U.S. Climate Legislation Adequate to Promote a Global Carbon Credit System for Avoided Deforestation in a Post-Kyoto Regime?*, 19 TUL. J. INT'L & COMP. L. 95 (Winter 2010).

16. Draft decision -/CP.16 (Advance Unedited Version), *available at* http://unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf

17. See Bernard Schlamadinger et al., *Should We Include Avoidance of Deforestation in the International Response to Climate Change?*, Tropical Deforestation and Climate Change 53, 53 (Paulo Moutinho & Stephan Schwartzman eds., 2005).

18. CDM *Rulebook*, Clean Development Mechanism Rules, Practice and Procedures, *available at* http://www.cdmrulebook.org/287.

19. *See* Rômulo Silveira da Rocha Sampaio, *Seeing the Forest for the Treaties: The Evolving Debates on Forest and Forestry Activities Under the Clean Development Mechanism Ten Years After the Kyoto Protocol*, 31 FORDHAM INT'L L.J. 634, 643 (2008). *See also* 6/CMP.1, Annex, paragraph 1(c), CDM Rulebook, Clean Development Mechanism Rules, Practice and Procedures, *available at* http://www.cdmrulebook.org/ 363.

20. United Nations Framework Convention on Climate Change, Pozan Climate Change Conference (Dec. 2008), *available at* http://unfccc.int/meetings/cop_14/items/4481.php.

21. United Nations Framework Convention on Climate Change, Bonn Climate Change Conference (June 2009), http://unfccc.int/meetings/sb30/items/4842.php.

22. Charlie Parker et al., Global Canopy Programme, The Little REDD+ Book 14 (2009), *available at* http://www.globalcanopy.org/themedia/file/PDFs/LRB_lowres/lrb_en.pdf. For a detailed discussion of REDD+ and its possible role as a component of a post-Kyoto climate change treaty, see infra Part III.B.

emerged from Cancun did not explicitly state where financing for REDD projects will come from, but requested that governments explore options for financing prior to the next international climate change meeting in Durban. Many believe that this omission implies that financing will be generated via the carbon market, which would allow developed nations to purchase reforestation credits to offset their own surplus emissions.[23]

Most recently, at the 17th session of the Conference of the Parties ("COP 17") to the United Nations Framework Convention on Climate Change ("UNFCC"), in 2011 in Durban, South Africa, delegates again did not agree on a plan to finance REDD projects and officially postponed making such a decision until COP 18. However, negotiators did conclude that "results-based finance provided to developing country parties that is new, additional and predictable may come from a wide variety of sources, public and private bilateral and multilateral, including alternative sources."[24]

B. Market-Based Preservation Projects Have Not Been Incorporated

The Yasuní Initiative, as proposed by the government of Ecuador, affords developed nations the opportunity to invest in the preservation of forested land by compensating them for the revenue that they would have gained from the extraction and combustion of fossil fuels. By providing an economic incentive to developing nations such as Ecuador who, otherwise could not afford to forgo profits from extraction, the preservation of biologically and culturally diverse regions becomes a possibility. By compensating developing nations for abstaining from exploiting their resource-rich land, projects like Yasuni offer a realistic solution to mitigate the effects of climate change, by "creat[ing] a financial value for the carbon stored in forests," and offer "incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development."[25]

23. Lang, Chris, *Four Reactions to Cancun: Via Campesina, Bolivia, Friends of the Earth International and Indigenous Environmental Network*, *available at* http://www.redd-monitor.org/ 2010/12/12/four-reactions-to-cancun-via-campesina-bolivia-friends-of-the-earth-international-and-indigenous-environmental-network/ (Dec. 12, 2010).

24. Draft Decision, CP.17, paragraph 65, *available at* http://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/cop17_safeguards.pdf.

25. See About REDD+, UN-REDD Programme, *available at* http://www.un-redd.org/AboutREDD/tabid/582/language/en-US/Default.aspx (last visited Sept. 4, 2010).

III. Incorporating Market-Based Preservation Programs into a Successor to the Kyoto Protocol

According to the United Nations REDD program, deforestation and forest degradation are greater contributors to pollution than all of the world's cars, trains, planes and ships combined.[26] Scientists estimate that in the next five years alone, deforestation will release more CO_2 than all aircraft from the time the Wright Brothers first flew their airplanes until 2025.[27] Among the benefits of forest retention are the preservation of bio-diverse hotspots, preservation of indigenous cultures, the avoided release of carbon from exploitation of mined materials such as fossil fuels, avoided GHG emissions from avoided colonization, and the sequestration of existing carbon.[28]

If the "natural value" of a live tree is unaccounted for, then there is no question that the tree is worth more as lumber or paper.[29] However, new market mechanisms and incentives are beginning to recognize and reward protection of the natural environment by considering the value of environmental externalities and are focusing on both the impacts and results of conservation.[30] By considering market-based preservation programs, we begin to reshape a valuation scheme that recognizes the actual market value of developing nations' commitment to preserve biologically diverse regions. Experts have begun this process by accounting for "functional acres,"[31] which include tons of carbon avoided, in addition to the value of the untouched land itself, or "ecosystem productivity."[32]

A. The Time is Right, The World is Ready

Following the negotiations in Cancun, it was clear that many of the

26. Rhett Butler, Forest Conservation in U.S. Climate Policy: An Interview with Jeff Horowitz, Mongabay.com (Feb. 5, 2010), *available at* http://print.news.mongabay.com/2010/0205-adp_forests_redd.html?print (internal quotation marks omitted).

27. Mitchell, Andrew, *Forests First in the Fight Against Climate Change*, The Vivo Carbon Initiative (June 2007).

28. *See* Carbon Conservation, *available at* http://www.carbonconservation.com/media.html. Since trees soak up carbon dioxide through photosynthesis, the preservation of forests actually results in a sequestration of CO_2 emissions.

29. *Id.*

30. *Id.*

31. To see how these functional acres are applied in practice, *see, e.g.*, Willamette Partnership, Ecosystem Credit Accounting-Pilot General Crediting Protocol: Willamette Basin Version 1.1, at 6 (2009), *available at* http://willamettepartnership.org/ecosystem-credit-accounting/willamette-ecosystem-marketplace-documents/General%20Crediting%CC20Protocol%207.20.09.pdf.

32. *Id.*

fundamental decisions regarding what would be incorporated into a successor to the Kyoto Protocol would not be decided until the meeting in Durban, South Africa in 2011. Among the few firm commitments made in the agreement in Cancun, the Conference of parties agreed to establish a Green Climate Fund, comprised of delegates from both the developing and developed world, which would be responsible for supporting "projects, programmes, policies and other activities" in developing countries.[33] Developed nations agreed to raise U.S.$100 billion annually for the fund to be disbursed to developing countries. The creation of this fund shows that the developed world is ready, willing and able to invest significant resources in sound climate change policy in the developing world.

B. Payment for Ecosystem Services Projects as an Indication of An Emerging Consensus That Environmental Externalities Should Be Quantified

Payments for Ecosystem Services ("PES") programs involve a voluntary transaction where landowners are compensated for providing some benefit to the ecosystem, or the "benefits stemming from natural systems which are necessary for humans to prosper."[34] PES programs involve individuals, corporations, the government, or nongovernmental organizations providing compensation to individual landowners for ecosystem services provided.[35]

Under PES programs, landowners who are providing environmental services - such as forest conservation on their land - are fully compensated for the benefits they have conferred on others. For example, a landowner who preserves his forested land is forgoing the profits that could be collected from the sale of lumber and the use of the deforested terrain. Meanwhile, the landowner is conferring the benefit of carbon sequestration on others. PES programs provide a financial incentive to private landowners to continue to provide ecosystem services in lieu of maximizing their own wealth via the exploitation of their resource-rich land. Among the twenty-four specific ecosystem services identified by a 2005 U.N. Sponsored report, the Millennium Ecosystem Assessment, three services are receiving the most funding worldwide: climate change mitigation, watershed services, and

33. Draft decision -/CP.16 (Advance Unedited Version), *available at* http://unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf.

34. Steed, Brian C., *Government Payments for Ecosystem Services: Lessons from Costa Rica*, Indiana University, School of Public and Environmental Affairs (Fall 2007), *available at* http://www.law.fsu.edu/journals/landuse/vol23_1/Steed.pdf. *See* Sven Wunder *Payments for Environmental Services: Some Nuts and Bolts*. Center for International Forestry Research (CIFOR) Occasional Paper No. 42, 8 (2005), *available at* http://www.cifor.cgiar.org/publications/pdf_files/OccPapers/OP-42.pdf.

35. Steed, *Supra* note 34.

biodiversity conservation.[36]

Costa Rica's National Fund for Forestry Finance ("FONAFIFO," Spanish acronym) is often referred to as the most successful PES Initiative. Established twenty years ago, the program has been responsible for the reforestation and preservation of over one quarter of the landmass of Costa Rica.[37] Thus far, the PES has recaptured 26 percent of the country's land mass-to-forest cover, "benefited more than 7,000 small-to medium-scale private land owners for the environmental services their property provides for watershed protection, scenic beauty, biodiversity conservation, and carbon sequestration."[38]

Market-based preservation programs are equivalent to PES systems, but if incorporated as a formal mechanism in the Kyoto Protocol, would offer additional ecosystem benefits, including the mitigation of GHG emissions from avoided deforestation, avoided combustion of fossil fuels, avoided extraction of fossil fuels, and avoided colonization. The basic principle remains the same: To account for the external value of environmental benefits conferred by offering financial incentives to landowners who are conferring the benefit at the local level.

IV. Ecuador's Yasuní Initiative as a Model for Market-Based Preservation Projects.

The Yasuní Initiative ("Yasuní") presents an innovative, holistic policy to mitigate the emission of greenhouse gasses. The Yasuní addresses the critical issues of climate change by compensating the global south with the opportunity to reinvent their economy. The Yasuní is inherently multi-dimensional so far as it conserves biodiversity hotspots, or a region with a significant degree of biodiversity, while providing an incentive to restructure the energy supply and demand matrix.[39] Further, the Yasuni Initiative creates new entrepreneurial opportunities within Ecuador.[40] Unlike other forest carbon projects, the Yasuní's principle purpose is to mitigate the burning of fossil fuels by precluding the extraction of the fossil fuels. The avoided deforestation and colonization of the surrounding area are only

36. *Demand for Environmental Services*, Paying Farmers for Environmental Services: Demand For Environmental Services. United Nations Food and Agriculture Office Report, *available at* ftp://ftp.fao.org/docrep/fao/010/a1200e/a1200e04.pdf.

37. Pax Natura: Peace with Nature, News: Costa Rica, a Leader in Forest Preservation, *available at* http://www.trunity.net/paxnatura/news/view/131452/?topic=8718 (last visited Feb. 2, 2011).

38. Pax Natura: Peace with Nature, *Payment for Environmental Services: Program Highlights*, *available at* http://www.paxnatura.org/CostaRicanPESProgram.htm.

39. *See Yasuni Bonn Presentation August* 2010, 3 (Aug. 28, 2010), *available at* http://mdtf.undp.org/factsheet/fund/3EYC0.

40. *Id*.

additional positive side effects of the initiative. There are many additional benefits of Yasuni-type projects, including environmental protection and social justice, surplus carbon sinks, and the evolution of petro-dependent economies into green technology leaders.

A. Fundamentals of the Yasuní Initiative.

It is estimated that 900 million barrels of crude oil, about 20 percent of Ecuador's total reserves lie underneath the Ishpingo-Tambococha-Tiputini ("ITT") oilfields within Yasuní National Park.[41] In the Yasuní Initiative, Ecuador's President Correa has offered to leave the ITT reserves unexploited in exchange for $600 million to $700 million annually for ten years, which is equivalent to the revenue Ecuador would expect from exploiting the oil.[42] At a conference in Ecuador, the Earth Economics Institute estimated the total value of extracting the oil would have a present value of U.S.$5.026 billion.[43] The protection of the Yasuní from oil extraction would prevent the emission of 406.91 million metric tons of carbon dioxide from the burning of the fossil fuel alone, which is equivalent to the annual emissions of Brazil (332 million tons), France (373 million tons) and Ecuador's emissions over thirteen years

41. *Ecuador's Yasuní-ITT Proposal*, University of Maryland College of Chemical & Life Sciences, *available at* http://sef.umd.edu/sef2007.html (last visited Oct. 8, 2010). In a presentation given by Alberto Acosta, ex minister of energy and mines of Ecuador presented the Ecuadorian government's working assumptions regarding the value of oil under ITT. Acosta estimated that there are 900 million barrels of recoverable reserves based on 36 million barrels of average expected annual production. *See also* Davis, Tracy, *Breaking Ground Without Lifting a Shovel: Ecuador's Plan to Leave Its Oil in the Ground*, 30 HOUS. J. INT'L L. 243, 245, 30 Houjil 243 (Mar Session 2008) [Hereinafter *Breaking Ground Without Lifting a Shovel*].

42. Larrea, Carlos, *Yasuni ITT: An Initiative to Change History*, 4, *available at* http://yasuni-itt.gob.ec/wp-content/uploads/initiative_change_history_sep.pdf. [hereinafter Larrea] "In the European Market for Certificates of Emissions Reductions (CERs), the value of the avoided emissions prevented by the Initiative would be US$7.19 billion."

43. *See also Summary of Yasuni ITT Conference*, November 21-23, 2007, Universidad Andina Simon Bolivar, *available at* http://www.eartheconomics.org/FileLibrary/file/Reports/Summary_of_Yasun%C3%AD_ITT_Conference.pdf. "The heavy crude from ITT would need to be deluded, therefore, the proposal is to mix the crude from ITT with that of block 15 stored in Lago Agrio and transport it to a new refinery which would be built in Manabi. They estimate 944 million barrels of crude oil and project its price by considering the market price for this type of crude between January 2006 and March 2007 (between $22 and $49), they add $2 to production costs for externalities giving the costs per barrel a total of $18,5. The income per barrel is projected to be $32.1 leaving $13.6 per barrel in revenue for the State. The net present value of utilities from ITT with a 12% discount rate is estimated at $5,026 billion."

(twenty-nine million tons).[44]

Ecuador has a petro-dependent economy, with half of its export earnings and one fourth of public sector revenues coming from its petroleum resources,[45] the proposal by President Correa may signify that Ecuador's desire to conserve the Yasuní outweighs the financial incentive to develop and extract the oil under its surface. According to one Senior Associate of the environmental think tank the World Resources Institute (WRI), Ecuador is motivated by its belief that it can actually "be a green pioneer by showing the rest of the world how one can build an economy while protecting the environment."[46] Carlos Larrea, technical director of the Yasuní Initiative and a professor at the Andean University Simon Bolivar in Quito, explains the three main purposes of the Yasuní Initiative as "mitigating global warming, preserving biodiversity in one of the most important hot spots on the planet, and mitigating poverty by creating sustainable employment."[47] The Yasuní Initiative is, in the words of the United Nations Development Programme ("UNDP"), "an opportunity for the world to consider more just and equitable paradigms of sustainable development."[48] Ecuador is the first country that has considered leaving lucrative oil reserves unexploited in order to mitigate the effects of climate change.[49]

B. Contextualizing the Yasuní Initiative

In 2001, Agip Oil Ecuador BV, a subsidiary of the multibillion dollar Italian petrochemical company, "Eni," convinced an association of Huaroani Indians to sign over oil access to tribal lands and give up their future right to sue for environmental damage.[50] In return Agip gave modest allotments of medicine, food, a $3,500 schoolhouse, plates, cups, an Ecuadorian flag, two

44. Climate Equity, Schalatek, Liane, *Yasuní ITT: It's Worth the Trust!* (Sep. 30, 2010), *available at* http://climatequity.org/2010/09/30/yasuni-itt-its-worth-the-trust/. *See also supra not* 6, http://unfccc.int/resource/docs/2011/awglca14/eng/misc04a01.pdf.

45. *The World Factbook*, *available at* https://www.cia.gov/library/publications/the-world-factbook/geos/ec.html, "Ecuador" (last visited Oct. 8, 2010).

46. Hearn, Kelly, *Deep in Ecuador's Rainforest, A Plan to Forego an Oil Bonanza* (Sep. 13, 2010), *available at* http://e360.yale.edu/feature/deep_in_ecuadors_rainforest_a_plan_to_forego_an_oil_bonanza/2315/.

47. *Id*.

48. Multi-Donor Trust Fund Office, United Nations Development Program, *Ecuador Yasuní ITT Trust Fund*, http://mdtf.undp.org/yasuni (last visited Oct. 10, 2010). (Hereinafter *Multi-Donor Trust Fund Office*).

49. McAvoy, Esmé, *The Worlds First Really Green oil deal* (Aug. 8, 2010), *available at* http://www.independent.co.uk/environment/climate-change/the-worlds-first-really-green-oil-deal-2046512.html.

50. Hearn, Kelly, *Exclusive: Selling the Amazon for a Handful of Beads* (Jan. 17, 2006), *available at* http://www.alternet.org/story/30657/.

soccer balls and a referee's whistle.[51] Indicative of the vast gap between cultures, two of the tribal representatives signed the document with fingerprints.[52]

Historically, Ecuador's desire to maximize investment in the country has outweighed its obligation to work in the best interest of its people.[53] In July 2001, the Ecuadorian Ministry of Defense and sixteen oil companies signed an agreement that established the terms by which the Ecuadorian government would secure oil installations, and committed the Ecuadorian military to control arms, explosives and undocumented persons.[54] In return, oil companies would provide food, fuel and medical attention to the Ecuadorian soldiers.[55] While these contracts are technically legal in substance, many argue that to be legal under Ecuadorian law, the agreements should be publicized, and these agreements were not.[56] A spokesperson for Chevron, an oil company that has been accused of engaging in secretive contractual schemes,[57] stated that the classified nature of the agreement is necessary because "(t)his is a very dangerous region and we take very seriously . . . the safety and security of our employees and contractors."[58] Supporting his assertion are stories of oil opponents who invaded camps, "destroyed equipment, and blocked highways . . . [o]ne oil executive says he knows of 19 kidnappings of oil-industry workers in recent years."[59]

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51. *Id.*

52. *Id.*

53. *Id.* Until recently, many believed the Ecuadorian army has "become a private security force for oil companies, one obligated to patrol vast swaths of jungle lands while engaging, and spying on, Ecuadorian citizens opposed to oil operations."

54. *Id.*

55. *Id.*

56. *Transparency Snapshot: Ecuador*, Revenue Watch Institute, *available at* http://www.revenuewatch.org/our-work/countries/ecuador/transparency-snapshot. "The Constitution of 1998 guaranteed freedom of information rights. The public's right to information access was further bolstered by the Organic Law on Transparency and Access to Public Information ("LOTAIP"), adopted in May 2004. The LOTAIP has been the foundation for disclosure of information about the hydrocarbon sector, notably effecting the publication of production sharing contracts and service contracts by the national oil company."

57. Excerpt: Affidavit of the Secoya tribe given by Elias Piaguaie -Aguinda, et al., v. Texaco Inc. - Case # 93-CV-7527, *Chevron* (CVX) *in the Amazon – Oil Rights or Human Rights? Texaco's Legacy, Chevron's Responsibility*, *available at* http://www.amnestyusa.org/ business-and-human-rights/extractives/chevron-corp/page.do?id=1101670.

58. Hearn, Kelly, *Woe's mount for oil firms in Ecuador*, THE CHRISTIAN SCIENCE MONITOR (Feb 9, 2006), *available at* http://www.csmonitor.com/2006/0209/p06s02-woam.html/(page)/2.

59. *Id.*

Conversely, in recent years under newly elected leadership, the Ecuadorian government has begun to push back against global oil companies. Ecuadorian indigenous tribes have begun to speak out about environmentally injurious practices of Chevron, which have affected their basic rights to clean water, food, health and home.[60] In one suit against Chevron, 30,000 Cofan natives claim that Chevron intentionally dumped nineteen billion tons of toxic wastewater into their territory in violation of their rights to an adequate standard of living, water and sanitation under the International Convention on Economic, Social and Cultural Rights.[61] The Yasuní Initiative represents an emerging Ecuadorian consensus among civil society: "nunca mas," or N*o* M*ore* exploitation of the country by foreign oil companies.[62]

C. Background on Yasuní Ishpingo-Tambococha-Tiputini Initiative

The Yasuní National Park, described by scientists as "one of the most bio-diverse places on earth,"[63] is home to an estimated 9,800 indigenous people who live in voluntary isolation from the modern world, including members of the Huaroani, the Tagaeri, and the Taromenane tribes**.**[64] The Yasuní receive national and international recognition, including designation as a national park by the government of Ecuador in 1979 and a Biosphere Reserve by the United Nations Education, Scientific and Cultural Organization ("UNESCO") in 1989.[65] However, these titles have "neither led to a clear definition of rights or responsibilities, nor bound the Ecuadorian government - nor the international community - to preserving its integrity"[66]

60. *Supra* note 57.

61. *Id.* "A report published on behalf of the Plaintiff alleges that these actions contaminated both the soil and the groundwater of the communities in the area and will continue to threaten the economic and cultural bases of Indigenous peoples' survival."

62. *Supra* note 4.

63. *Global Conservation Significance of Ecuador's Yasuní National Park*, Margot S. Bass et. al., *available at* http://www.plosone.org/article/info:doi/10.1371/journal.pone.0008767. "a typical hectare of *terra firme* forest in Yasuní contains upwards of 655 tree species—more than are native to the continental United States and Canada combined." *See also* "About the Yasuni", Yasuní Green Gold, *available at* http://www.yasunigreengold.org/about-yasuni.php "it is thought to be a zone that did not freeze during the last ice-age, which began 2 million years ago and lasted up to 10,000 years ago. As a result, it became an island of vegetation where flora and fauna took refuge, survived and eventually re-populated the Amazon."

64. *Id.*

65. *Id. See also* MAB *Biosphere Reserves Directory*, UNESCO, *available at* http://www.unesco.org/mabdb/br/brdir/directory/biores.asp?code=ECU+02&mode= all.

66. *Planning Development Futures in the Ecuadorian Amazon: The Expanding Oil Frontier and the Yasuní-ITT Initiative*, Rival, Laura, University of Oxford *available at* http://

beyond promoting Yasuní as a symbol for a bio-diverse region, which is worthy of preservation.[67] Despite these national and international designations, the Ecuadorian government continued to promote oil development in Yasuní until the section of the park was designated as a "Zona Intangible," or an *off limits zone*, in 2007.[68]

In 2008, Ecuador altered its Constitution and became the first country to grant rights to nature by banning oil extraction in protected areas, stating in Article 71:

> (n)atural communities and ecosystems possess the unalienable right to exist, flourish and evolve within Ecuador. Those rights shall be self executing, and it shall be the duty and right of all Ecuadorian governments, communities and individuals to enforce those rights.[69]

In addition to the alterations made to its constitution, Ecuador incorporated the notion of "El Buen Vivir"[70] (*Sumak Kawsai* in Quechua), which signifies "living in harmony with humans and nature."[71] While Ecuador has always perceived its economy to be based on mining and petroleum industries, this bold alteration of its Constitution is recognition that petroleum-based economic activities have not "been beneficial for the economy, since the external debt only increased and no additional investments" were made in the country.[72]

In July 2010, Ecuador enacted a new law which increased state control over the oil sector.[73] Previously, mining companies and the government shared the profits of production with additional taxes levied on companies

www.sosyasuni.org/en/index.php?option=com_content&view=article&id=148&catid=1&Itemid=34 (last visited Oct. 8, 2010).

67. *Id.*

68. *Leaving the Oil under the Amazon: Ecuador's Yasuní-ITT Initiative* (Oct. 26, 2009), *available at* http://onlinelibrary.wiley.com/doi/10.1111/j.1744-7429.2009.00587.x/full#b18. "The southern section of the park was finally placed off-limits to the oil industry in 2007 with the delimitation of a Zona Intangible, an untouchable zone designed to protect the core territory of the Tagaeri and Taromenane."

69. Warners, Lavinia, *The Yasuní ITT Initiative: An International Environmental Equity Mechanism* at 49, Masters Thesis, Social and Political Sciences on the Environment Rabdoub University (Jan. 2010) (hereinafter *Equity Mechanism*).

70. *Id.*

71. *Id.*

72. *Id.*

73. BBC News, Latin America and Caribbean, *Ecuador Increasing State Control Over Oil Sector*, (July 27, 2010), *available at* http://www.bbc.co.uk/news/world-latin-america-10772445; *See also Ecuador Moving to Increase State Role in Oil Sector*, Israel News (July 25, 2010), *available at* http://www.ynetnews.com/articles/0,7340,L-3924507,00.html.

that earned very high profits.[74] Under the new law, Ecuador owns 100 percent of the oil, and oil companies will receive a flat "fee" for the service they provide in extracting the oil.[75] After enacting the law, oil companies were granted 120 days (until November 22, 2010) to renegotiate their contracts with the government; otherwise their lease would be taken over by the state oil company, Petroecuador.[76] With knowledge of this new law and its effects on their future profitability, Petrobaras - a Brazilian oil company with a lease over the land in Yasuní[77] - transferred the land back to Petroecuador.[78]

However, neither the creation of the Zona Intangible in 2007, the constitutional amendment in 2008, nor the 2010 law, guarantee that oil drilling will not proceed in Yasuní; Due to the fact that "drilling in protected areas such as Yasuní National Park and the Zona Intangible may proceed if declared by Congress to be in the national interest and approved by the President."[79] While the existence of this loophole raises doubts about the sincerity of Ecuador's commitment to the preservation of Yasuní, even skeptics admit that "(m)aking the protection of the park economically attractive by recovering a portion of the foregone oil revenue would increase the chances of protecting Yasuní in the long term."[80] However, as discussed below, if the Yasuní Initiative does not succeed in garnering financial support, the Yasuní ITT is susceptible to destruction.[81]

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74. Hintadupfing, *Ecuador Signs Historic Deal to Leave Oil in the Soil* (Aug. 5, 2010), *available at* http://hintadupfing.blogspot.com/2010/08/ecuador-signs-historic-deal-to-leave.html.

75. *Id.*

76. *Id.*

77. Petrobras's lease covered the land in Block 31, located within the Yasuní National Park. *See Update 1: Petrobras to Return Amazon Oilfield to Ecuador* (Sep. 20, 2008). http://www.reuters.com/article/idUSN2048690320080920?pageNumber=1&virtualBrandChannel=0.

78. *Id.*

79. Finer, Matt, *Leaving the Oil Under the Amazon: Ecuador's Yasuní-ITT Initiative* (Oct. 26, 2009), *available at* http://onlinelibrary.wiley.com/doi/10.1111/j.1744-7429.2009.00587.x/full (hereinafter *Finer*) "(T)he strategic importance of the ITT oil fields would likely be enough to invoke the national interest loophole required to drill in Yasuní."

80. *Id.*

81. *See Stealth Research in the Amazon* (May 27, 2010), *available at* http://www.cnn.com/video/#/video/international/2010/05/27/ef.amazon.research.bk.b.cnn?iref=allsearch. "In the past forty years alone, the Amazon has lost 20% of its forested land." In the documentary, Earth Frontiers collected research on endangered species, which live in the Yasuní region, confirming its status as one of the most biologically diverse regions in the world. *See also Breaking Ground Without Lifting a Shovel* at 249. "If Ecuador is unable to raise the needed capital from the international community, as some doubt that it will, the country has indicated it will develop the ITT oilfield."

Petrobaras's proposed extraction plan remains a viable alternative for the Ecuadorian government if they do not succeed in gaining enough financial support for the Initiative to justify abstaining from drilling. Under Petrobaras's proposed oil extraction plan, the company would make inroads into the Yasuní by constructing six drilling platforms, connected by a train access route.[82] Additional adverse environmental impacts would likely accompany the extraction process, since workers from Petrobaras would ultimately settle in the area to be closer to the extraction site, and infrastructure to support their colonization would develop.[83]

1. The Mechanics of the Yasuní Initiative

On August 3, 2010, the Yasuní ITT Trust Fund was established and was immediately ready to receive contributions.[84] On that day, the Under-Secretary-General of the United Nations Rebeca Grynspan and Foreign Minister of Ecuador Ricardo Patiño signed a historic agreement that launched the Yasuní ITT Trust Fund, which was a "hard-won prerequisite for collecting pledges to pay Ecuador for foregoing the revenues it would have received from opening Yasuní to oil drilling."[85]

On June 5, 2007, the Ecuadorian government had officially adopted a proposal in which it sought contributions from the international community to leave all oil in the ITT Zone in the ground in exchange for fifty percent of the projected oil revenue.[86] Under this plan, contributions could be made directly to Ecuador, or in the form of debt for conservation swaps.[87] Debt for conservation swaps allow individual non-governmental organizations or governments to purchase a nation's foreign debt title, then exchange that

82. *See* Finer. *See also Investor's Brief: Proposed Petrobras Oil Development in Ecuador's Block* 31 *in Yasuní National Park*, *available at* http://www.banktrack.org/download/investors_brief/yasuniinvestorsbrieffinal.pdf. *See also* Illustration 2 (Attached).

83. *Id.* "New access routes often trigger additional deforestation by facilitating subsequent colonization that is very difficult to control, as demonstrated by the experience following construction of a new oil access road just to the west of the ITT fields."

84. *See It's Worth the Trust*. *See also* Multi-Donor Trust Fund Office.

85. Hearn, Kelly, *Deep in Ecuador's Rainforest, A Plan to Forego an Oil Bonanza* (Sep. 13, 2010), *available at* http://e360.yale.edu/feature/deep_in_ecuadors_rainforest_a_plan_to_forego_an_oil_bonanza/2315/; *See also* Vogel, Joseph Henry, *Opinion: Yasuní and the New Economics of Climate Change* (Aug. 23, 2010), *available at* http://articles.cnn.com/2010-08-23/opinion/oped.yasuni_1_climate-change-oil-fields-intergovernmental-panel/2?_s=PM:OPINION.

86. German Bundestag, 16th Electoral Term, 3 *available at* http://www.ute-koczy.de/cms/default/dokbin/287/287012.for_the_scrutiny_and_development_of_ecu.pdf. The forms of payment considered by the Ecuadorian government include: debt relief, financial contributions from other countries, financial contributions from NGOs and other civil society groups and donations from individuals.

87. *Id.*

debt with the country for conservation program guarantees.[88]

However, in mid-2008, Ecuador altered its proposal, instead offering CO_2 credits for sale amounting to the total projected oil revenue if the oil were exploited.[89] Ecuador has proposed the sale of Yasuní Guarantee Certificates ("CGYs") as carbon credits to be purchased by governments or by companies, with the goal of making the credits fungible under the European Union Trading System.[90] Although not recognized under the Kyoto Protocol, Ecuador is offering CGYs for sale based on the hope that the credits will be usable with the passage of a new climate change agreement under the United Nations Framework Convention on Climate Change.[91]

Ecuador has pledged to use all investments for social projects, to develop alternative energies, to invest in conservation and environmental projects, and to develop ecotourism within Ecuador.[92]

2. Insuring Financial Contributions

To insure all financial contributions, the Government of Ecuador plans to issue CGYs proportional to the value of avoided CO2 emissions from abstaining from burning the oil, according to the price of the European Allowances ("EUAs") in the Leipzig Carbon Market.[93] Ecuador proposes that governments should purchase CGYs now for use at future auctions of EU Emissions Allowances.[94] Annex I Countries of the Kyoto Protocol that choose to support the Initiative will consider the CGYs equivalent to a carbon credit, and private companies will ultimately have the opportunity to purchase the CGYs to offset their carbon emissions from the countries that purchase such credits.[95] Carbon credits are equivalent to one ton of carbon dioxide, and can be earned through the sequestration or reduction of CO_2 emissions. Carbon offsetting involves the sale of carbon credits to offset an

88. *See* WWF Center for Conservation Finance, Commerical Debt-for-Nature Swaps (Dec. 9, 2003), *available at* http://www.cbd.int/doc/external/wwf/wwf-commercial-swaps-en.pdf.

89. Larrea at 4.

90. *Id*.

91. *Id*.

92. *Id*.

93. *See* Larrea at 24.

94. *Id*.; *See also* Multi-Donor Trust Fund Office. *See also Leaving the Oil under the Amazon*: *Ecuador's Yasuní-ITT Initiative* (Oct. 26, 2009), *available at* http://onlinelibrary.wiley.com/doi/10.1111/j.1744-7429.2009.00587.x/full#b18.

95. *Yasuni ITT Initiative*, World Resources Institute Slide Show Presentation, Slide 8/26, *available at* http://www.slideshare.net/WorldResources/yasuni-itt-initiative-presentation.

individual's or business's own emissions.[96]

The CGYs do not expire, do not accrue interest, and may only be redeemed in the event that the Ecuadorian government decides to begin oil exploration within the ITT Reserves, in which case the certificates will be returned at full face value.[97] If contributions are too small to warrant the issuance of a CGY, the contribution will be considered a donation to the Yasuní Initiative.[98] The CGY certificates ensure that "the crude [oil] stays, in an indefinite manner, below ground."[99]

The income generated by the sale of certificates will be put into the UNDP managed trust fund, and the interest accrued off the trust fund will support sustainable development projects within Ecuador.[100]

3. Managing the Trust Fund

The trust fund is managed by the UNDP, and governed by a six-person steering committee, which will make all funding decisions regarding the initiative.[101] Ecuadorian governmental officials will hold three seats on the steering committee, two seats will go to contributing countries, and the remaining seats will go to a representative from Ecuadorian civil society.[102]

4. Funding the Account

Funding of the account has been divided into two stages: a capital fund window and a revenue fund window. Under the capital fund window, contributions will be invested in a select list of renewable energy projects including hydro, geothermal, solar, wind, biomass, and tidal plants. The value of carbon would be updated each year, using the present price of carbon credits.[103] The expected 7 percent return on those investments will

96. ECI (July 4, 2008). *Carbon Offsets*, *available at* http://www.eci.ox.ac.uk/research/climate/cop07/offsets.php, University of Oxford Environmental Change Institute (last visited March 2, 2011).

97. Larrea at 39.

98. *Id.* "Where the contribution is below the minimum threshold established by the Steering Committee, it shall constitute a donation to the Yasuní ITT Trust Fund and will not entitle the Contributor to CGYs."

99. Hearn, Kelly, *Deep in Ecuador's Rainforest: A Plan to Forego an Oil Bonanza* (Sep. 13, 2010), *available at* http://e360.yale.edu/feature/deep_in_ecuadors_rainforest_a_plan_to_forego_an_oil_bonanza/2315/.

100. *Leaving the Oil under the Amazon: Ecuador's Yasuní-ITT Initiative* (Oct. 26, 2009), *available at* http://onlinelibrary.wiley.com/doi/10.1111/j.1744-7429.2009.00587.x/full#b18.

101. *Ecuador Yasuní ITT Trust Fund: Terms of Reference* (July 28, 2010), *available at* http://climatequity.org/2010/09/30/Yasuní-itt-its-worth-the-trust/.

102. *Id.*

103. Larrea at 21.

be disbursed into a pot in the revenue fund window.[104] Income generated in the revenue fund window will fund environmental and social development projects to be determined by the steering committee of the fund.[105] Such development projects include reforestation, conservation, energy efficiency, agro-forest management, and social programs for indigenous groups.[106]

V. Avoided Deforestation Projects As the Best Climate Change Policy

A. Potential to Convert a Petro-Driven Economy into a Green Leader

By reinvesting contributions directly into renewable energy projects in the developing world, market-based preservation projects afford developing nations the opportunity to transform themselves from being dependent on resource exploitation into green economies. This assertion is best illustrated in the case of Ecuador, which has traditionally been a petro-driven economy. During the past few years, Ecuador has begun investing in new green technology by installing the first pilot wind-power plants and photovoltaic solar panels, and promoting the use of renewable energies such as biofuels and other alternative fuels.[107] Ecuador's green potential[108] is vast, and includes high potential for geothermal energy due to high volcanic activity, opportunity for growth in the amount of energy produced from hydroelectric dams, high solar potential due to its location on the equator which produces a stable sunny climate, wind energy generation in the Andes and at the coast, and the possibility of generating tidal energy.[109] However, to continue to grow its portfolio of renewable energy projects and break its cycle of petro-dependence, Ecuador - like other developing nations - will need foreign investment in its green economy.

As an illustration of the potential of avoided deforestation programs to convert petro-dependent economies into green energy leaders, Guatemala and Nigeria have approached Ecuador for help in designing similar

104. McAvoy, Esmé, *The Worlds First Really Green Oil Deal* (Aug. 8, 2010), *available at* http://www.independent.co.uk/environment/climate-change/the-worlds-first-really-green-oil-deal-2046512.html.

105. *Id*.

106. *Id*.

107. Carrion, Hugo, 2010 - *ICTs and Environmental Sustainability*, *available at* http://www.giswatch.org/country-report/2010-icts-and-environmental-sustainability/ecuador.

108. This term refers to the potential of a country to convert from petro-dependency to reliance on sustainable forms of energy.

109. *Supra* note 34.

programs, which may be implemented in their countries.[110] Further, countries that share key characteristics with Ecuador may adopt this model - specifically, developing countries located in areas of high biodiversity, who similarly have abundant oil reserves. Continued greenhouse gas emissions and the increasing intensification of climate change represent a significant expense for developing nations as they cope with extreme weather patterns from flooding to droughts.[111] While cynics suggest that scarcity will ultimately provide a powerful incentive to drill as the value of oil continues to rise, if developing nations succeed in transforming themselves into economies that thrive off of their green markets, they may not be forced to succumb to pressures and drill in biologically and culturally sensitive zones.

Encouraging the development of alternative solutions now, especially amongst developing countries, is a means of giving developing economies a head start at becoming green leaders, and therefore represents an investment in international development both in the short term and into the future.

B. Represents a Holistic Political Shift, Leakage Will Be Minimized

Leaders of indigenous groups worry that in setting aside one area of the country as off limits to deforestation and resource extraction will encourage exploitation of the other areas that would have otherwise been preserved. Referred to as "leakage" in the climate change policy community, this problem stands as one of the principle arguments against allowing credits for market-based preservation projects to be integrated into the flexibility mechanisms of a successor to the Kyoto Protocol. However, if market-based preservation programs are integrated into the successor in the right way, or pitched as nothing less than a "new paradigm for development,"[112] these programs will prove to be stepping stones for converting developing nations from a petro-economies to green leaders.

Unlike reforestation projects, which require monitoring all forests within a nation to ensure that leakage has not caused the overall rate of deforestation to remain the same, market-based preservation programs such as the Yasuní Initiative are location specific. So as long as the Yasuní is not drilled, the intended carbon sink will be maintained. While reforestation projects are susceptible to concurrent deforestation, thereby diminishing

110. Hintadupfing, *supra* note 73.

111. Larrea S*upra* note 20 at 10.

112. Daniel Ortega, a spokesperson for the environment and climate change ministry in Ecuador stated, "We are seeking nothing less than a new paradigm for development. This is what the majority of people in Ecuador want." S*ee* Ferti, Duroyan, E*cuador to* L*eave* O*il in* G*round* (Aug. 7, 2010), *available at* http:// www.greenleft.org.au/node/45045.

the efficacy of reforestation as creating a carbon sink, avoided resource extraction and preservation of bio-diverse regions in perpetuity is not an interchangeable commodity. Further, since the money saved will be invested in renewable energy technologies, the incentive to invest energy and resources into the exploration of new fossil fuel zones will be diminished because of the increasing availability of alternative fuel.

As an added bonus, while this project quantifies the carbon emissions, which are mitigated as a result of limiting the extraction of oil, a surplus of carbon emissions are additionally forestalled by avoiding deforestation, which would accompany the colonization of the surrounding areas to accommodate oil workers.

C. Questions of Additionality[113] are Resolved

The question of whether forests such as the Yasuní ITT forest would be preserved regardless of this initiative is clearly answered: no. In the case of Ecuador, with proven significant reserves of oil under the surface of the Yasuní ITT, its destruction is imminent without the Yasuní ITT Initiative. Leaving the ITT reserves in place via the Yasuní Initiative is the *only* option being considered by the Ecuadorian government that does not involve "extraction and development of the oil."[114] As recently as January 9, 2010, Ecuador's President Correa threatened donor countries, which he believed were threatening Ecuador's sovereignty over the Yasuní-ITT Initiative, that he was willing to resort to his Plan B of awarding an oil drilling contract to Petrobaras and stated: "keep your money and in June we will begin to exploit the ITT."[115] Ecuador's leadership can justify drilling in the Yasuní ITT as "within the national interest" if they fail to gain financial support for the Yasuní ITT Initiative.

D. Avoided Deforestation Initiatives Such as the Yasuní Represent a Bold Assertion of Environmental Justice

> *The average* US *citizen emits* 19.73 *tons of* CO_2 *per year, while the average* Ecuadorian *emits* 1.68 *tons of* CO_2 *annually. Using the difference between these values and the global average per capita emissions rate of* 4.18 *tons of* CO_2, *and assuming a* US$10 *perton* CO_2 *cost of mitigation, the total* US *debt would be* US$45.7 *billion per year, while* Ecuador *could realize a credit*

113. "Additionality" refers to whether "the project (reduces) emissions in a way that is business as usual, or is it beyond business as usual," *See* http://www.nativeenergy.com/pages/additionality/38.php.

114. *Supra* note 19, *Breaking Ground Without Lifting a Shovel* at 249.

115. Andrade, Lisa, *Ecuador: Controversy Over Drilling for Petroleum in the Amazon* (Feb. 26, 2010), *available at* http://www.huffingtonpost.com/lisa-ubelaker-andrade/ecuador-controversy-over_b_478645.html.

of US$325 *million per year*.[116]

The Yasuní Initiative represents a holistic approach that focuses on preserving the rights of the indigenous people who would otherwise be displaced, or unfairly negotiated out of title to their native land. On October 30 and 31, 2008, the Confederation of Indigenous Nationalities of Ecuador ("CONAIE"), which represents fourteen indigenous nationalities and eighteen indigenous communities in Ecuador, assembled a special meeting in Tena, Ecuador, in order to pass a resolution in support of the Yasuní Initiative. The committee resolved "to support the international campaign Yasuní Green Gold . . . that forbids the oil exploitation in the ITT area."[117]

While it may be argued that the Yasuní Initiative boldly and wrongfully asserts the Ecuadorian government's ownership over indigenous occupied territory, CONAIE's support for the initiative represents the position of the indigenous people in realizing that the Yasuní Initiative is a viable and - more relevantly - a realistic mechanism for preserving the indigenous people's ancestral land.

VI. Next Steps: Making Avoided Deforestation Projects Feasible By Allowing Them to Be Incorporated into International Carbon Markets

On August 3, 2010, the Yasuní fund was opened for the receipt of contributions.[118] In early August, Chile made the first country contribution of U.S.$100,000,[119] which was largely a symbolic gesture aimed at encouraging and inspiring international support for the Yasuní Initiative. While Spain has announced its intention to analyze "mechanisms to contribute," few other financial contributions have been committed. With

116. *Development in the Amazon Basin Countries: Alternatives to Extraction of Non-Renewable Natural Resources* 50 (Apr. 27, 2009), *available at* http://www.american.edu/sis/gep/upload/Jose-de-la-Bastida-SRP-GEP-April-2009.pdf (*Citing* Correa, Rafael and Lenin Moreno. Keeping ITT Oil Underground. Concept Document Government Initiative. Quito: Vicepresidencia de la República del Ecuador, n.d.).

117. "The CONAIE supports Yasuni Green Gold" (Nov. 13, 2008), *available at* http://yasunigreengold.blogspot.com/2008/11/conaie-confederation-of-indigenous.html.

118. SAA *Ecuador Yasuní* ITT *Fund English*, Multi Donor Trust Fund Office, http://mdtf.undp.org/yasuni/.

119. *Chile the First Country to Contribute to the Yasuni-ITT Initiative* (*Sep*. 17, 2010), *available at* http://content.undp.org/go/newsroom/2010/september/chile-the-first-country-to-contribute-to-the-yasuni-itt-initiative.en;jsessionid=axbWzt8vXD9. In a ceremony held at the Ecuadorian Foreign Ministry, Chile's Foreign Minister of Affairs handed President Correa the check for U.S.$100,000 and stated: "The commitment and contribution of the Government of Chile to this fund, while it may not be a significant sum in monetary terms, is what we can do in the light of the earthquake that struck Chile a few months ago and of other needs of our population."

carbon caps requiring many industrialized nations to invest in tradable carbon credits, voluntary, charitable investments in climate change projects are unlikely.

To qualify as tradable under the EU ETS the Yasuní Initiative must qualify under the Clean Development Mechanism ("CDM") under Article 12 of the Kyoto Protocol, which allows developed countries to invest in sustainable development projects that reduce emissions in developing countries. Under the CDM, all projects must result in "real, measurable, and long-term benefits related to the mitigation of climate change"[120] and be "additional" in the sense that the emission reductions in question would not otherwise occur but for the project. Second, the project must be an eligible activity and adhere to transparency requirements and specified formal procedures. Governance of the CDM is by the Conference of Parties to the UNFCC and an Executive Board, which registers worldwide CDM projects and issues CERs, which are transferable and can be used for compliance with the Kyoto Protocol.[121] Each tradable unit on the European Union Emissions Trading System ("EU ETS") is equal to one ton of CO_2, or one European Union Allowance.[122]

The EU ETS is the largest emission-trading scheme in the world, not only in terms of installations, but also with respect to real emissions considered.[123] Under the EU ETS, one ton of carbon dioxide is represented by one European Union Allowance ("EUA"); which is tradable in spot markets such as BlueNext (Paris), Energy Exchange of Austria ("EXAA, Vienna"), Nord Pool ("Oslo"), European Energy Exchange ("EEX, Leipzig"), and Gestore Mercato Elettrico ("GME, Rome").[124]

In June 2009, Silvestrum VoF – a small consulting firm located in the Netherlands, which consults on the creation of carbon assets in land-use projects[125] – was asked to assess the possibility that the Yasuní ITT Initiative could be associated with international carbon market within the EU ETS.[126] Carbon credits may be awarded to initiatives such as the Yasuní in one of two ways. First, credits may be awarded for the nonexploitation (or in the

120. Kyoto Protocol, *supra* note 3, at Article 12 (5) (b) and (c).

121. *Supra* note 2.

122. United Nations Framework Convention on Climate Change, Emissions Trading, http://unfccc.int/kyoto_protocol/mechanisms/emissions_trading/items/2731.php.

123. Mansanet Bataller, Maria and Pardo Tornero, Ángel, What You Should Know to Trade in CO2 Markets, Energies, Vol. 1, pp. 120-153 (Mar. 1 2008), *available at* http://ssrn.com/abstract=1156973.

124. *Id.*

125. Silvestrum, Services, *available at* http://www.silvestrum.com/services/.

126. *Analysis of the Yasuni* ITT *Initiative*, 9 (June 10, 2009), *available at* http://www.silvestrum.com/_userfiles/files/Market%20Study%20Silvestrum%20English%2010%20June%202009%20version%201_2.pdf.

case of the Yasuní, the non-combustion) of natural resources that would otherwise be exploited. Second, credits may be awarded for the value of the carbon sequestration that results from avoided deforestation. In the successor to the Kyoto Protocol, the latter accreditation should be considered. Exclusion from the European Trading System means that the Yasuní Initiative will be traded only in voluntary markets, where REDD credits currently account for approximately one third of all credits traded.[127] Among the disadvantages of relegating the trading of REDD credits to the voluntary market are that credits on the voluntary market trade at approximately 80 percent to 90 percent discount compared to European Allowances.[128]

A. Credits for the Nonexploitation of Fossil Fuels

There are three fundamental problems with awarding credits for the non-exploitation of fossil fuels under the CDM:

- The non-exploitation of the oil stock is only a side effect of the preservation of the Yasuní, and its combustion would represent an independent act outside the prevented activity (extraction).[129]
- CDM calculates emissions reductions against a "baseline of emissions" rather than a "baseline of stocks;" therefore maintaining the pools of fossil fuels that fall outside the CDM's normal framework.[130] Specifically, the clean development mechanism calculates the allotment of carbon credits based on historical emissions from a given business or industry. Since market -based preservation programs do not save against a backdrop of prior emissions, but instead forgo future emissions, the baseline calculation is skewed.
- The Yasuní Initiative may be considered a policy decision, which would fall outside the "business as usual" emissions baseline normally used to calculate emissions reductions under the CDM.[131]

B. Credits for Avoided Deforestation

Alternatively, the CGY Certificates may qualify under the CDM as "avoided deforestation credits," since the preservation of the Yasuní from

127. *Id.*
128. *Id.*
129. *Id.* at 16.
130. *Id.*
131. *Id.*

clearing and extraction is the primary objective of the initiative. As previously stated, under the CDM, aforestation and reforestation initiatives have been integrated, however REDD has yet to have been *actually* credited under the UNFCC. Some scholars have suggested that the Yasuní ITT Initiative's greatest hope for incorporation into the international carbon trading market (specifically, the EU ETS) lies in its ability to effectively join together with other similarly minded countries and lobby for the inclusion of REDD activities into the CDM.[132] The Government of Guyana has proposed a similar initiative to the Yasuní ITT and has asked the international community to compensate Guyana for not cutting down its forest at pace with the "rational rate of deforestation."[133] Bolivia has proposed preserving the Madidi National Park by avoiding drilling, which would conserve 1.9 million hectares, and similar to the Yasuní, would preserve thousands of plant and animal species native to the area.[134] Finally, India - with a low rate of deforestation - has fought to include conservation as an eligible category into REDD negotiations.[135]

VII. Conclusion

In recent years, Ecuador has amended its constitution to become one of the more environmentally progressive Constitutions in the world, incorporating rights for nature and re-negotiation oil contractors to provide fixed fees for oil extraction. Yet still, like in most similarly situated countries, even the most biologically diverse tracts of land are susceptible to destruction by mining, fossil fuel extraction, and colonization if *necessity* requires the exploitation of the land. The catch-all loophole, which permits the extraction of fossil fuels even with a real risk of destroying native villages, and sacrificing immense biological diversity, is a prime example of why new mechanisms such as the Yasuní Initiative, which preserve biodiversity and guard against environmentally hazardous practices, are needed.

By incorporating avoided deforestation projects into the flexibility mechanisms of the successor to the Kyoto Protocol, developing nations

132. "Some scholars" refers specifically to the opinion of the consultants from Silvestrum (the company asked to assess the feasibility of trading Yasuni certificates in the EU ETS). *See e.g.*, *Analysis of the Yasuni ITT Initiative*, 9 (June 10, 2009), *available at* http://www.silvestrum.com/_userfiles/files/Market%20Study%20Silvestrum%20English%2010%20June%202009%20version%201_2.

133. Office of the President, Republic of Guyana, *Creating Incentives to Avoid Deforestation* (Dec. 2008), *available at* http://www.gina.gov.gy/booklet%20on%20avoided%20deforestationf.pdf.

134. Chavez, Frank, *Madidi National Park and the Curse of Petroleum*, (Dec. 9, 2010), *available at* http://ipsnews.net/news.asp?idnews=53819.

135. *Id.*

would be afforded the opportunity to invigorate their economies by stopping the cycle of the unfair exploitation of natural resources, and in its place creating opportunity for entrepreneurs to participate in a new, sustainable green economy. The Yasuní Initiative is the first proposal put forth by any nation which proposes to leave a forest untouched in perpetuity in exchange for investment in the greenhouse gas emissions *avoided* by abstaining from drilling.